

CURRICULUM VITAE

ILIAS SKEPARNIAS

Biologist, M.Sc.

Personal Details

Name: Ilias Skeparnias
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Education

- 2015 - today:** Ph.D. candidate, Graduate Program in Basic Medical Sciences, School of Medicine, Department of Biochemistry, University of Patras, Patras, Greece. My work focuses on mammalian PNLDC1, a novel, poly(A) specific ribonuclease playing role in development.
- 2013 - 2015:** M.Sc. in Basic Medical Sciences, School of Medicine, Department of Biochemistry, University of Patras, Patras, Greece. Expertise in Medical Biochemistry-Immunology. My research focused on rational design and subsequent in vitro evaluation of potential inhibitors affecting DEDD type Deadenylases. **Degree:** Distinction (9.36/10). **Master's Thesis:** "Design and study of inhibitors of DEDD deadenylases based on molecular dynamics simulation of the active site of ribonuclease PNLDC1" supervisor: Prof. Constantinos Stathopoulos. **Degree:** 10/10 (*excellent*).
- 2008 - 2013:** BSc in Biology, Department of Biology, University of Patras, Patras, Greece. **Degree:** 6.36/10.00 (*Good*). **Diploma Research thesis (2011-2013):** "Genomic and imaging studies on a new human deadenylase" supervision by Prof. Constantinos Stathopoulos. **Degree:** 10/10 (*excellent*).
- 2008:** Graduated from University Experimental High School of Patras. **Degree:** 17.4/20.0 (*Very Good*).

Research Experience

2011 - today: School of Medicine, Department of Biochemistry, University of Patras, Patras, Greece. Current methodologies and techniques of Molecular Biology, Biochemistry and Genetics including DNA arrays and bioinformatic analyses.

Field of research: *RNA Biology*.

Domains of expertise: *Molecular Biology techniques:* Procedure of Molecular Cloning, PCR, DNA-RNA isolation, SDS-Page electrophoresis, enzymatic treatment, protein expression. *Protein purification:* Affinity chromatography. *Enzymology:* Enzyme assay, Inhibitor screening assay, kinetic analysis. *Field of Pharmacology:* Virtual screening and subsequent in vitro evaluation of potential DEDD Deadenylase inhibitors. *Immunological techniques:* Western blot. *Cell culture:* Maintain and handle cell lines, transfection. *Cell cycle analysis:* Analysis by flow cytometry (Pi staining). *Handling radioactive materials.* *Bioinformatics:* Handling of biological databases and bioinformatics software (alignment, blast, Image J, MxPro, RNA Expert 2100 etc).

2016-2017: Participation in the research project “Switching from adaptation to regulation in pathogens: The role of Staphylococcus aureus glyS T-box riboswitch”. Principal Investigator: Prof. Constantinos Stathopoulos.

-2015: Participation in the research project “Creating experimental diffraction platform and nuclear magnetic resonance for design and drug discovery”. Principal Investigator: Assist. Prof. Irene Margiolaki.

2013 - 2014: Participation in the research project “Dissecting the involvement and the dynamic networks of tRNA expression, signaling and translation in lung cancer”. Principal Investigator: Prof. Constantinos Stathopoulos.

-2013: Participation in project of Unit for Special Biochemical Analyses “Detection of oligoclonal bands in cerebrospinal fluid by isoelectric focusing”. Principal Investigator: Prof. Dennis Drinas. Faculty of Medicine, University of Patras.

Publications

1. **Skeparnias I.***, Anastasakis D.*, Shaukat N-A., Grafanaki K. and Stathopoulos C. (2017) Expanding the repertoire of deadenylases. *RNA Biol* **7**:1-6. **(*) authors with equal contribution.**
2. Anastasakis D.*, **Skeparnias I.***, Shaukat N-A., Grafanaki K., Kanellou A., Taraviras S., Papachristou D. J., Papakyriakou A. and Stathopoulos C. (2016) Mammalian PNLDC1 is a novel poly(A) specific exonuclease with discrete expression during early development. *Nucleic Acids Res* **44**(18): 8908-8920. **(*) authors with equal contribution.**

Abstracts in International Conferences

1. Grafanaki K., Kontos C., Korfiati A., Theofilatos K., Mavroudi S., Anastasakis D., **Skeparnias I.**, Kyriakopoulos G., Papaioannou D., Scorilas A., Drinas D. and Stathopoulos C. (2017) Dissecting the effect of a novel synthetic retinoid-polymanine conjugate on mRNA and miRNA expression profiles of HaCaT cells. Innovations in Cancer Prevention and Research conference, Austin, Texas, USA.
2. **Skeparnias I.**, Anastasakis D., Shaukat N-A., Grafanaki K., Papakyriakou A. and Stathopoulos C. (2017) Mammalian PNLDC1 deadenylase is specifically expressed during early development and affects the expression of long non-coding and piRNAs. 2nd International Conference on the Long and the Short of Non-Coding RNAs, Heraklion, Crete, Greece.
3. Anastasakis D.*, **Skeparnias I.***, Shaukat N-A., Grafanaki K., Kanellou A., Taraviras S., Papachristou D. J., Papakyriakou A. and Stathopoulos C. (2016) Characterization of mammalian PNLDC1: a novel deadenylase expressed specifically during early development. EMBO | EMBL Symposium: The Complex Life of mRNA, EMBL Heidelberg, Germany. **(*) authors with equal contribution.**
4. Anastasakis D., **Skeparnias I.**, Grafanaki K., Papakyriakou A., Stathopoulos C. (2014) Studies on human *pnldc1*: a *parn* paralog encoding a novel DEDD deadenylase. FEBS EMBO 2014 Conference, Paris.
5. Anastasakis D., Grafanaki K., Kontos C., **Skeparnias I.**, Apostolidi M., Konstantinidou P., Alexopoulos P., Gioutlakis A., Dougenis D., Drinas D., Moschonas N.K., Scorilas A. and Stathopoulos C. (2014) Monitoring the expression dynamics of networks controlling tRNA expression, signaling and translation in lung cancer. 25th tRNA Conference 2014, Kyllini, Greece.

Abstracts in National Conferences

Oral Presentations

1. Anastasakis D.*, **Skeparnias I.***, Shaukat N-A., Grafanaki K., Kanellou A., Taraviras S., Papachristou D. J., Papakyriakou A. and Stathopoulos C. (2016) Mammalian PNLDC1 is a novel poly(A) specific exonuclease with discrete expression during early development. Hellenic Society of Biochemistry and Molecular Biology NEWSLETTER, 62. **(*) authors with equal contribution.**
2. **Skeparnias I.**, Anastasakis D., Shaukat A-N., Kanellou A., Taraviras S., Papakyriakou A. and Stathopoulos C. (2015) Modulation of mRNA turnover in differentiated and stem cells based on screening and evaluation of potential DEDD deadenylase inhibitors. 3o YSF of Hellenic Society of Biochemistry and Molecular Biology.
3. Anastasakis D., Grafanaki K., Kontos C., **Skeparnias I.**, Apostolidi M., Konstantinidou P., Alexopoulos P., Gioutlakis A., Dougenis D., Drinas D., Moschonas N.K., Scorilas A. and Stathopoulos C. (2014) Monitoring the expression dynamics of networks controlling tRNA expression, signaling and translation in lung cancer. Proceedings of the 37th Scientific Conference of Hellenic Association for Biological Sciences Volos, May 21-23, 2015.

Posters

1. **Skeparnias I.**, Anastasakis D., Shaukat A-N., Kanellou A., Taraviras S., Papakyriakou A. and Stathopoulos C. (2015) Modulation of mRNA turnover in differentiated and stem cells based on screening and evaluation of potential DEDD deadenylase inhibitors. Hellenic Society of Biochemistry and Molecular Biology NEWSLETTER, 61.
2. Shaukat A-N., **Skeparnias I.**, Anastasakis D., Stathopoulos C. (2015) Mouse PNLDC1 deadenylase exhibits similar biochemical properties to its human homolog. Hellenic Society of Biochemistry and Molecular Biology NEWSLETTER, 61.
3. Anastasakis D., Kontos C., Grafanaki K., Marchand A., **Skeparnias I.**, Kourmoutou G.G., Kostopoulou O.N., Alexopoulos P., Dougenis D., Drinas D., Jossinet F., Kalpaxis D.L., Scorilas A. and Stathopoulos C. (2015) The transcriptomic profile of tRNAs, tRFs, miRNAs and their related genes suggests modulation of essential translation factors which promote elevated protein synthesis in Non-Small Cell Lung Cancer. Hellenic Society of Biochemistry and Molecular Biology NEWSLETTER, 61.
4. Shaukat A-N., **Skeparnias I.**, Anastasakis D., Stathopoulos C. (2015) Mouse PNLDC1 deadenylase exhibits similar biochemical properties to its human homolog. Proceedings of the 37th Scientific Conference of Hellenic Association for Biological Sciences Volos, May 21-23, 2015.

5. Anastasakis D., Grafanaki K., Kontos C., **Skeparnias I.**, Apostolidi M., Konstantinidou P., Alexopoulos P., Gioutlakis A., Dougenis D., Drainas D., Moschonas N.K., Scorilas A. and Stathopoulos C. (2014) Monitoring the expression dynamics of networks controlling tRNA expression, signaling and translation in lung cancer. Hellenic Society of Biochemistry and Molecular Biology NEWSLETTER, 60.
6. **Skeparnias I.**, Anastasakis D., Papakyriakou A. and Stathopoulos C. (2014) Rational design and in vitro evaluation of potential mRNA turnover modulators affecting the novel deadenylase PNLDC1. Hellenic Society of Biochemistry and Molecular Biology NEWSLETTER, 60.
7. Anastasakis D., **Skeparnias I.**, Grafanaki K., Papakyriakou A., Stathopoulos C. (2013) Studies on human pnlc1: a parn paralog encoding a novel DEDD deadenylase. Hellenic Society of Biochemistry and Molecular Biology NEWSLETTER, 59.
8. **Skeparnias I.**, Anastasakis D., and Stathopoulos C. (2012) Cloning and expression profiling of two isoforms of the novel human deadenylase PNLDC1. Hellenic Society of Biochemistry and Molecular Biology NEWSLETTER, 58.
9. Anastasakis D., **Skeparnias I.**, Balatsos N. Becker H. D., Drainas D. and Stathopoulos C. (2011) Cloning, expression, purification and preliminary characterization of a novel human deadenylase. Hellenic Society of Biochemistry and Molecular Biology NEWSLETTER, 57.

Workshops - Seminars - Webinars

1. QPCR seminar, March 2016, Pasteur Institute.
2. CRISPR Gene Editing in Stem Cells, September 2017, Cell Press Webinar.
3. Monitoring Practice Education in valuation techniques and data analysis Spectroscopy NMR, within the 2nd SEEDRUG Workshop, May 2013, University of Patras.

Teaching Activities

2014 - today: Teaching Assistant in Biochemistry I, II and III laboratory practical courses for the undergraduate students of the School of Medicine of the University of Patras.

- 2013: Refreshing the website of Biomedical Sciences, University of Patras (<http://bie.med.upatras.gr>).

Foreign Languages

English: Fluent (Proficiency, C2), **French:** Very Good (Sections A1 & A2)